

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853560

Luminaire Tested: SQ2-BBM-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853560
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-150U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

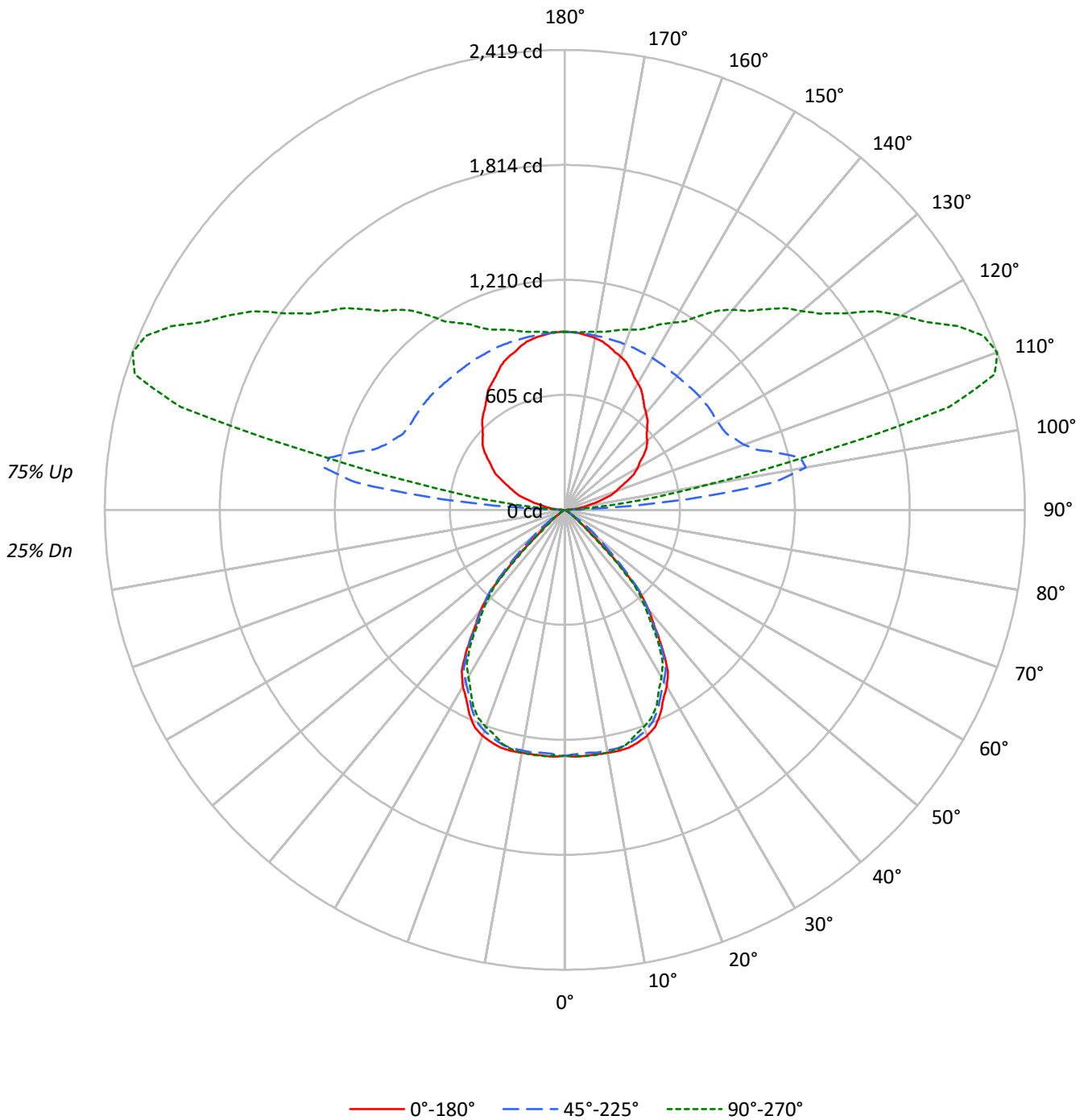
Lumens per Lamp: N/A
Luminaire Lumens: 7708.4 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	101	101	101	101	90	90	90	90	69	69	69	51	51	51	33	33	33	25
1	93	89	86	83	83	80	77	75	62	60	59	46	45	44	31	30	30	23
2	86	79	74	69	76	71	67	63	56	53	50	42	40	38	28	28	27	21
3	79	71	64	59	70	63	58	54	50	46	44	38	35	34	26	25	24	19
4	73	63	56	51	65	57	51	46	45	41	38	34	32	30	24	23	22	17
5	67	57	49	44	60	51	45	40	41	37	33	31	29	26	22	21	20	16
6	62	51	44	39	55	46	40	36	37	33	29	29	26	24	21	19	18	15
7	57	46	39	34	51	42	36	31	34	29	26	26	23	21	19	17	16	13
8	53	42	35	30	48	38	32	28	31	27	24	24	21	19	18	16	15	12
9	50	39	32	27	45	35	29	25	28	24	21	22	19	17	16	15	14	11
10	46	35	29	24	42	32	26	23	26	22	19	21	18	16	15	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20891	20891	20891
5°	21032	20799	21065
10°	21276	21087	21261
15°	21660	21371	21274
20°	21720	21256	20861
25°	21148	20635	20309
30°	19980	19442	18921
35°	17710	17501	17008
40°	14457	14254	13687
45°	8524	10061	7930
50°	2876	5606	2562
55°	974	2004	1030
60°	94	591	32
65°	0	38	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	1.6
10°-20°	361.9	4.7
20°-30°	532.6	6.9
30°-40°	544.1	7.1
40°-50°	312.8	4.1
50°-60°	54.7	0.7
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	1.3	0.0
90°-100°	356.5	4.6
100°-110°	1167.5	15.1
110°-120°	1154.2	15.0
120°-130°	943.5	12.2
130°-140°	770.0	10.0
140°-150°	599.2	7.8
150°-160°	431.5	5.6
160°-170°	264.0	3.4
170°-180°	89.2	1.2
0°-30°	1018.1	13.2
0°-40°	1562.2	20.3
0°-60°	1929.7	25.0
0°-90°	1933.0	25.1
90°-120°	2678.3	34.7
90°-150°	4991.1	64.7
90°-180°	5776.0	74.9
0°-180°	7708.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1298	1295	1283	1302	1300	124
15°	1296	1307	1278	1279	1273	365
25°	1187	1198	1158	1146	1140	543
35°	898	903	888	873	863	554
45°	373	434	441	418	347	292
55°	35	41	71	40	37	39
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	50	145	648	231	150	57
105°	203	289	1159	2202	2092	214
115°	366	437	942	1946	2284	361
125°	509	567	928	1534	1802	453
135°	613	678	920	1323	1492	474
145°	716	769	918	1138	1247	449
155°	816	844	924	1018	1058	376
165°	892	900	928	964	974	251
175°	932	932	933	940	938	88
180°	936	936	936	936	936	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.9	1293.9	1293.9	1293.9	1293.9
2.5°	1299.3	1296.3	1286.2	1297.7	1294.7
5°	1297.7	1294.9	1283.3	1301.6	1299.7
7.5°	1297.0	1294.7	1287.0	1302.9	1299.1
10°	1297.7	1297.7	1286.2	1300.5	1296.8
12.5°	1299.3	1303.1	1283.9	1295.1	1289.9
15°	1295.8	1307.1	1278.5	1279.3	1272.7
17.5°	1281.8	1297.0	1257.9	1248.7	1238.7
20°	1264.1	1280.1	1237.1	1222.5	1214.1
22.5°	1237.1	1252.4	1207.1	1194.8	1185.6
25°	1187.1	1197.5	1158.3	1145.6	1140.0
27.5°	1121.7	1127.0	1092.8	1079.7	1070.3
30°	1071.7	1071.7	1042.8	1028.1	1014.9
32.5°	1009.3	1006.3	987.4	970.4	958.0
35°	898.5	903.2	887.9	873.3	862.9
37.5°	776.0	780.5	764.8	748.1	740.9
40°	685.9	689.7	676.3	658.8	649.4
42.5°	575.1	595.4	583.2	564.0	551.6
45°	373.3	434.4	440.6	417.8	347.3
47.5°	194.5	258.5	305.5	233.3	163.5
50°	114.5	155.9	223.2	127.4	102.0
52.5°	73.7	91.7	157.0	81.5	68.9
55°	34.6	41.2	71.2	40.3	36.6
57.5°	12.9	19.3	32.1	19.5	14.0
60°	2.9	8.5	18.3	5.7	1.0
62.5°	0.6	2.5	10.6	1.1	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.2	0.6	1.5	1.4	1.5
90°	1.0	2.8	7.7	6.8	7.7
92.5°	16.3	59.6	183.1	59.6	47.7
95°	50.0	145.0	648.2	230.9	150.0
97.5°	90.8	191.2	1112.1	672.8	417.0
100°	119.3	215.2	1286.8	1149.1	761.7
102.5°	151.6	245.2	1267.6	1693.2	1312.6
105°	202.9	289.4	1158.9	2201.8	2091.8
107.5°	253.5	332.9	1052.9	2249.3	2370.3
110°	286.6	363.7	1002.1	2194.0	2418.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	318.1	393.0	971.3	2097.7	2385.7
115°	365.5	436.9	941.5	1945.6	2284.1
117.5°	411.4	478.2	930.2	1796.0	2139.8
120°	441.4	504.4	927.1	1708.9	2043.7
122.5°	468.4	529.9	927.1	1633.7	1944.4
125°	508.8	567.1	928.1	1534.3	1802.3
127.5°	543.0	602.4	926.9	1461.0	1694.2
130°	564.5	624.7	926.1	1416.6	1627.2
132.5°	583.8	645.5	923.8	1378.5	1569.5
135°	612.6	677.5	920.4	1323.3	1491.6
137.5°	643.0	707.3	918.3	1265.8	1418.0
140°	664.6	726.6	917.5	1229.5	1373.3
142.5°	686.1	744.4	917.5	1190.7	1321.0
145°	716.5	769.1	918.4	1138.3	1247.4
147.5°	748.4	792.2	919.8	1092.7	1175.0
150°	768.4	807.0	921.3	1066.2	1135.8
152.5°	788.4	822.5	922.1	1044.4	1101.9
155°	816.5	843.8	924.2	1018.4	1057.9
157.5°	841.7	861.5	926.3	998.0	1026.5
160°	857.9	873.8	927.1	986.3	1008.9
162.5°	871.7	884.7	927.1	976.9	993.5
165°	891.5	900.0	928.1	963.9	974.2
167.5°	908.3	912.4	929.2	953.8	959.4
170°	917.5	919.4	930.0	948.3	950.2
172.5°	924.4	925.5	932.3	944.4	944.8
175°	931.9	931.9	932.9	939.6	937.7
177.5°	935.8	935.0	934.2	938.8	935.8
180°	935.8	935.8	935.8	935.8	935.8

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00